

## CLAIMS

What is claimed is:

1. A hemostatic agent adapted to be applied directly onto a bleeding wound comprising:

an effective amount of a oxyacid salt combined with an effective amount of an insoluble cation exchange material, said oxyacid salt combining with blood to promote blood clotting at the wound, said cation exchange material forming a protective cover over the wound as blood is thereby clotted.

2. A hemostatic agent as set forth in Claim 1, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;  
oxyacid salts of transition elements;  
halogen oxyacids; and  
alkali and alkaline oxides, peroxides and superoxides.

3. A hemostatic agent as set forth in Claim 1, wherein said cation exchange material is an admixture which is a cation exchange resin and a compound taken from the group that includes:

$K_2 Fe O_4$ ;  
 $KM_n O_4$ ;  
 $Na_2 O_2$ ; and  
 $KIO_3 Fe O_4$  and  $KM_n O_4$ .

4. A hemostatic agent as set forth in Claim 1, wherein said cation exchange material includes:

$K_2 Fe O_4$  as said oxyacid salt;

$Na H S O_4$  as an acidic inorganic salt.

5. A method of arresting the flow of blood from a bleeding wound comprising the steps of:

A. providing an effective amount of a substantially anhydrous compound of an oxyacid salt combined with an effective amount of hydrophilic proton donor which will hydrate in the presence of blood to thereby promote clotting of the blood;

B. applying said compound to the wound for a time sufficient to effect sufficient clotting of the blood to arrest substantial further blood flow from the wound.

6. A method of arresting the flow of blood as set forth in Claim 5, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;

oxyacid salts of transition elements;

halogen oxyacids; and

alkali and alkaline oxides, peroxides and superoxides.

7. A hemostatic agent adapted to be applied directly onto a bleeding wound comprising:

an effective amount of an oxyacid salt combined with an effective amount of a hydrophilic proton donor material, said oxyacid salt combining with blood to promote blood clotting at the wound, said hydrophilic proton donor material

combining with, and thereby neutralizing, hydroxyl ions formed as said oxyacid salt combines with blood to effect clotting.

8. A hemostatic agent as set forth in Claim 7, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;  
oxyacid salts of transition elements;  
halogen oxyacids; and  
alkali and alkaline oxides, peroxides and superoxides.

9. A hemostatic agent as set forth in Claim 7, wherein said hydrophilic proton donor is taken from the group that includes:

a cation exchange resin;  
an acid producing salt; and  
an organic acid.

10. A hemostatic agent as set forth in Claim 7, further comprising:  
a solid desiccant combined with said oxyacid salt and said hydrophilic proton donor material, said solid desiccant further accelerating blood clotting by absorbing water in the blood.

11. A hemostatic agent adapted to be applied directly onto a bleeding wound comprising:

an effective amount of an oxyacid salt combined with an effective amount of a hydrophilic polymer material, said oxyacid salt combining with blood to promote blood clotting at the wound, said hydrophilic polymer material forming a protective cover over the wound.

12. A hemostatic agent as set forth in Claim 11, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;

oxyacid salts of transition elements;

halogen oxyacids; and

alkali and alkaline oxides, peroxides and superoxides.

13. A hemostatic agent as set forth in Claim 12, wherein said hydrophilic polymer material is taken from the group that includes:

carboxy methylcellulose;

polyvinyl alcohol;

alginate;

gum arabic; and

all soluble gums.